

**Fig. S1** LC–UV/Vis chromatograms of the methanol extract of GF1. Zeaxanthin and other metabolites were detected in GF1 at a wavelength of 450 nm. Samples were separated by an InertSustain AQ-C18 column at a column temperature of 35°C. The mobile phase was 90% (v/v) methanol at a flow rate of 0.4 mL/min. A 1  $\mu$ g/mL zeaxanthin standard was shown for retention time comparison. Zeaxanthin was not detected from the methanol used for extraction.